



OS PL/I Checkout and Optimizing Compilers:

Keywords

Reference Summary

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This reference summary will be updated from time to time; however, the basic documentation is the authoritative source and will be the first to reflect changes. Information herein is extracted from *OS PL/I Checkout and Optimizing Compilers: Language Reference Manual*, GC33-0009.

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KEYWORD AND ABBREVIATION

USE OF KEYWORD AND EXAMPLES

A{(w)}	Format item: describes the w characters in the data stream to be a character string. <i>Note:</i> w is required on input. GET EDIT(CHARSTR) (A(5));
ABS(x)	Built-in function: returns the absolute value of x. CALL PX(SQRT(ABS(I3/INUM)));
ACOS(x)	Built-in function: returns the arc cosine of x in radians. A=ACOS(Y*F);
%ACTIVATE %ACT	Preprocessor statement: reactivates deactivated identifier for replacement in non-preprocessor statement. %I=15;. .%ACT I;. .%I=I+5;. .R=I*T*2; gives R=20*T*2;
ADD(x ₁ ,x ₂ ,x ₃ [,x ₄])	Built-in function: adds x ₁ to x ₂ with a resulting precision given by x ₃ and scale factor x ₄ . x ₄ must be omitted if x ₁ or x ₂ is floating point. DO C=1 to ADD(N,M,4,0);
ADDBUFF	Option of ENV: specifies that an area of main storage is to be made available as workspace for adding records to an INDEXED data set. ENV(. .ADDBUFF. .)
ADDR(x)	Built-in function: returns a pointer value identifying location of x. P=ADDR(TABLE);
ALIGNED	Attribute: specifies data is to be mapped according to alignment requirement of data type. DCL 1 A ALIGNED, 2 B, 3 C, 2 D UNAL;
ALL((character-string expression))	Option of PUT (checkout compiler only): lists values of all generations of all variables, all information listed by SNAP and FLOW, values of all condition built-in functions, enablement of on-conditions and establishment of on-units. The character-string expression specifies options that limit output as follows. F:file status; D:data values; S:scalar data values; C:on-condition information; T:current task; n:this number of blocks. ON ERROR PUT ALL('CD4');
ALL(x)	Built-in function: returns bit string (with length of longest element of array) resulting from logical AND of all the elements of array x. IF ALL(LIST) THEN GO TO FIN;

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2 ALLOCATE ALLOC	Statement: allocates storage for controlled or based data. DCL A(N1,N2) CONTROLLED; . . . ALLOCATE A;	BIT(x_1 , [x_2])	Built-in function: converts expression x_1 to a bit string of x_2 bits. If x_2 is omitted, the length is determined according to the rules for type conversion. IF \neg BIT(C1 C2) = SW THEN DO;
ALLOCATION(x) ALLOCN(x)	Built-in function: returns the number of allocations of controlled storage for variable x available to current task. Returns zero for no allocations. DO WHILE(ALLOCN(A)>0); FREE A;END;	BLKSIZE(n)	Option of ENV: specifies blocksize of data set associated with a file. ENV(. . . BLKSIZE(200) . . .)
ANY(x)	Built-in function: returns bit string (with length of longest element of array) resulting from logical OR of all the elements of array x. IF ANY(TABLE) THEN DO;	BOOL(x_1 , x_2 , x_3)	Built-in function: performs Boolean operation defined by x_3 on x_1 and x_2 . IF TEST=BOOL(PATTERN,MASK,'0110'B) THEN RETURN;
AREA	Condition: occurs on allocation of a based variable in an area if there is insufficient storage or on assignment of an area if target area is too small for the allocations in source area. ON AREA LOCATE LISTA FILE(OUT);	BUFFERED BUF	Attribute: requires each record of a SEQUENTIAL or TRANSIENT file to pass through buffers. DCL SALES FILE BUFFERED INPUT. . . ;
AREA[{size}]	Attribute: reserves storage (in bytes) for allocation of based variables. Default size is 1000 bytes. DCL MC AREA(2800);	BUFFERS(n)	Option of ENV: specifies number of buffers to be used. ENV(. . . BUFFERS(1) . . .)
ARGn	Qualifier for the options NOMAP, NOMAPIN, and NOMAPOUT in OPTIONS attribute: applies option to nth argument. If ARGn is not specified, option applies to all arguments. DCL COBOLA ENTRY OPTIONS (COBOL NOMAP(ARG1) NOMAPOUT(ARG3));	BUFOFF[{n}]	Option of ENV: specifies the length of the block prefix on an ASCII data set; n, if specified, must be in the range 0 to 99; default is 4. ENV(. . . BUFOFF(10) . . .)
ASCII	Option of ENV: specifies that the data set is in ASCII. ENV(. . . ASCII . . .)	BUILTIN	Attribute: specifies that the associated name is a built-in function. DCL DATE BUILTIN;
ASIN(x)	Built-in function: returns arc sine of x in radians. B=ASIN(L*M);	BY	Option of DO: specifies the control-variable increment in an iterative DO statement. DO I=1 TO 8 BY NUM;
ASSEMBLER ASM	Option of OPTIONS attribute. Specifies that entry point is in an assembler routine. DCL ENTB ENTRY OPTIONS(ASM);	BY NAME	Option of assignment statement: limits structure assignment to those elements whose names, other than highest-level names, are common to all structures in the statement. TOTAL=F1+2*TAX, BY NAME;
ATAN(x_1 , [x_2])	Built-in function: returns arc tangent of x_1 or of x_1/x_2 in radians. B=ATAN(L,M);	C(real-format- item[,real- format item])	Format item: describes external representation of the real and imaginary parts of complex data. If only one format item is given, both parts must have the same format. PUT EDIT (CUR) (C(F(10,2),F(8,2)));
ATAND(x_1 , [x_2])	Built-in function: returns arc tangent of x_1 or of x_1/x_2 in degrees. B=ATAND(L);	CALL	Statement: invokes named procedure. CALL FRED;
ATANH(x)	Built-in function: returns hyperbolic arc tangent of x. B=ATANH(L+M/2);	Option of INIT: DCL A(8) INIT CALL A INIT(B,3);	
ATTENTION ATTN	Condition (checkout compiler only): occurs in immediate mode when programmer causes an attention interruption from the terminal or when SIGNAL ATTENTION executed. ON ATTENTION CALL ATTPACK;	CEIL(x)	Built-in function: determines smallest integer greater than or equal to x. DCL ST CHAR(CEIL(LST/2));
AUTOMATIC AUTO	Attribute: specifies storage to be allocated upon each entry to the block to which the declaration is internal; storage is freed when block is terminated. DCL TABLE(4,6) AUTO;	CHAR(x_1 , [x_2])	Built-in function: converts x_1 to character string of length x_2 . If x_2 is omitted, the length is determined according to the rules for type conversion. CALL BC(SUBSTR(CHAR(B3,10),10,1));
B[{w}]	Format item: describes the external representation of a bit string. Note: w is required on input. GET EDIT (STRING) (B(12));	CHARACTER [(length)] CHAR[(length)]	Attribute: specifies data to be in character form. The default length is one. DCL STR CHAR(8);
BACKWARDS	Attribute: causes the (implied) RECORD SEQUENTIAL INPUT tape file to be accessed in reverse order. DCL TAPE FILE INPUT BACKWARDS. . . ;	CHECK [(name-list)]	Condition/Condition prefix: raised by (and prints an indication of) execution of statements or changes in value of items in name-list. (CHECK (EXP,VOL)):. . . ; ON CHECK(X) BEGIN;. . . END;
BASED[{p}]	Attribute: specifies that different generations can be identified by locator values. A based variable can be used to refer to variables of any storage class; it can also control its own storage by means of ALLOCATE and FREE statements. DCL REC CHAR(30) BASED(P);	CLOSE	Statement (checkout compiler only): dynamically enables CHECK condition for specified or assumed names. CHECK (NAME, HRS, TOT_PAY); CLOSE FILE(MASTER);
BEGIN;	Statement: forms heading statement of a begin block. ON ZDIV BEGIN;. . . END;	COBOL	Option of OPTIONS attribute: specifies that the designated entry point is in a COBOL routine. DCL E ENTRY OPTIONS(COBOL);
BINARY BIN	Attribute: specifies base of data item as binary. DCL A FIXED BIN(5,2);		Option of OPTIONS option: specifies that the entry point is to be invoked only by a COBOL routine. C:PROC(X,Y,Z) OPTIONS(COBOL);
BINARY (x_1 , [x_2 , [x_3]]) BIN(x_1 , [x_2 , [x_3]])	Built-in function: converts x_1 to binary base with a resulting precision given by x_2 and scale factor x_3 . x_3 must be omitted if x_1 is floating point. CALL B(BIN(I*M,25,6));		Option of ENV: specifies that structures in the data set associated with the file will be mapped according to the COBOL mapping algorithm. ENV(. . . COBOL . . .)
BIT[(length)]	Attribute: specifies data to be in bit-string form. The default length is one. DCL DATA BIT(8);	COLUMN(n) COL(n)	Format item: positions the file to the character position specified by n. PUT EDIT (X) (COL(8),A);

4 COMPLETION(x) CPLN(x)	Built-in function/Pseudovalue: refers to completion of event x; '1'B for event complete or '0'B if incomplete. COMPLETION(B2) = '1'B;	%DEACTIVATE %DEACT	Preprocessor statement: makes identifier ineligible for replacement by preprocessor. %DEACT I;
COMPLEX CPLX	Attribute: specifies mode of arithmetic data as complex. DCL AMP FIXED DEC (5,3) CPLX;	DECIMAL DEC	Attribute: specifies data to have decimal base. DCL B FIXED DEC (4,2);
COMPLEX(x ₁ , x ₂) CPLX(x ₁ , x ₂)	Built-in function/Pseudovalue: refers to a complex value as the two real numbers x ₁ and x ₂ . ROOT=CPLX(P1,8);	DECIMAL (x ₁ , [x ₂ , {x ₃ }]) DEC(x ₁ , [x ₂ , {x ₃ }])	Built-in function: converts the value of x ₁ to decimal base with a resulting precision given by x ₂ and x ₃ . x ₃ must be omitted if x ₁ is floating point. CALL SNO(DEC(X,8,2));
CONDITION COND	Attribute: specifies that the associated identifier is a condition name. DCL X COND;	DECLARE DCL	Statement: applies attributes to names. DCL (A,B) FIXED(10), C FLOAT(5)) EXTERNAL;
CONDITION (name) COND(name)	Condition: specifies a programmer-named condition, identified by name, that can be raised only by a SIGNAL statement. ON CONDITION(F) A=B; . . SIGNAL CONDITION(F);	%DECLARE %DCL	Preprocessor statement: identifies and activates a preprocessor variable or preprocessor procedure name. %DCL A CHAR;
CONJG(x)	Built-in function: returns the conjugate of the complex value x. C_ROOT=CONJG(ROOT);	DEFAULT DFT	Statement: specifies default attributes for designated identifiers. DEFAULT RANGE(X:Y) FIXED;
CONNECTED CONN	Attribute: specifies that a parameter refers to connected storage only. SUB1: PROC(A); DCL A(10) CHAR(1) CONN;	DEFINED DEF	Attribute: specifies that the defined variable is to occupy all or part of the same storage as the designated base variable. DCL A(8,8), D(2,2,2) DEF A;
CONSECUTIVE	Option of ENV: specifies records to be in physical order. Default for all files. ENV(. . . CONSECUTIVE. . .)	DELAY(n)	Statement: suspends execution of a task. n is in milliseconds. DELAY(15);
%CONTROL	Listing control statement (checkout compiler only): deactivates or reactivates FORMAT compiler option. %CONTROL(NOFORMAT);...%CONTROL(FORMAT);	DELETE	Statement: deletes record from UPDATE file. DELETE FILE (STOCK) KEY ('GX436211');
CONTROLLED CTL	Attribute: specifies that storage is controlled by ALLOCATE and FREE statements. Declared name refers to current generation only. DCL PROFIT CTL; . . ALLOCATE PROFIT;	DESCRIPTORS	Option of DEFAULT: specifies default attributes for parameter descriptors. DEFAULT DESCRIPTORS FIXED;
CONVERSION CONV	Condition/Condition prefix: raised for invalid conversion attempt on character-string data. ON CONVERSION GOTO LABEL;	DIM(x ₁ , x ₂)	Built-in function: finds current extent of dimension x ₂ of array x ₁ . DCL TABLE2(DIM(TABLE1,3));
COPY[(file-expression)]	Option of GET: causes source data to be written on specified file; default is SYSPRINT file. GET FILE(MASTER) LIST(A,B,C) COPY;	DIRECT	Attribute: specifies records of a file to be accessed in any order by use of a key. DCL PAYROLL FILE DIRECT. . .;
COS(x)	Built-in function: returns cosine of x where x is in radians. A=COS(SIN(D)**2);	DISPLAY	Statement: displays message to operator. DISPLAY ('MOUNT TAPE');
COSD(x)	Built-in function: returns cosine of x where x is in degrees. X=COSD(B);	DIVIDE(x ₁ , x ₂ , x ₃ [, x ₄])	Built-in function: divides x ₁ by x ₂ with a resulting precision given by x ₃ and scale factor x ₄ . x ₄ must be omitted if x ₁ or x ₂ is floating point. PUT SKIP LIST(DIVIDE(KM,HRS,5,2));
COSH(x)	Built-in function: returns hyperbolic cosine of x. A=COSH(E*F);	DO	Statement: delimits a group of statements and may specify repeated execution. IF A=B THEN DO; DO 1=40 to 0 BY -2; . . END; . . . END;
COUNT(x)	Built-in function: determines number of data items transmitted during last GET or PUT statement on file x. N=N+COUNT(PAYROLL);		Repetitive specification: PUT EDIT((A(1),J) DO I=1 TO N)) (F(4,2));
CTLASA	Option of ENV: specifies that an American National Standard carriage control character is the first byte in every record. ENV(. . . CTLASA. . .)	%DO	Preprocessor statement: delimits a preprocessor do-group and may specify repeated execution. %DCL I FIXED; %DO I=1 TO 10; Z(I)=X(I); %END;
CTL360	Option of ENV: specifies that an IBM system carriage control character is the first byte in every record. ENV(. . . CTL360. . .)	E(w,d,{s})	Format item: describes decimal arithmetic data in the data stream to be in floating point format; w=field width, d=fractional digits, s=significant digits, s is not required on input, and if it is omitted on output, s=d+1 is assumed. GET EDIT (TEMP) (E(8,6));
D	Option of ENV attribute: specifies unblocked variable-length records for ASCII data sets. ENV(. . . D. . .)	EDIT	Option of GET or PUT: specifies edit-directed transmission of data. PUT EDIT ('PAY=\$',P) (A(5),F(6,2));
DATA	Option of GET or PUT: specifies data-directed transmission of data names and values. PUT DATA (SUM,PROF);	ELSE	Clause of IF: defines action to be taken if value of expression is '0'B. IF A=B THEN C=D+E; ELSE H=F;
DATAFIELD	Built-in function: returns a character string giving contents of data field responsible for raising of NAME condition. ON NAME(INFILE) PUT SKIP EDIT('UNKNOWN: DATAFIELD) (A);	%ELSE	Clause of %IF: same as ELSE.
DATE	Built-in function: returns a current date in character-string form, yymmdd for year, month, and day. PUT LIST (DATE());	EMPTY	Built-in function: returns an area of zero extent and may be used to free all allocations of based variables in an area variable. TABLE=EMPTY;
DB	Option of ENV: specifies blocked variable-length records for ASCII data sets. ENV(. . . DB. . .)	END	Statement: delimits blocks and groups. DO; . . . END; LAST: PROC. . . . END LAST;
		%END	Preprocessor statement delimits preprocessor do-groups or procedures. %PP: PROC; . . . %END;
		ENDFILE(file expression)	Condition: raised in attempt to read past the file mark. ON ENDFILE(IN) GOTO S;

ENDPAGE(file-expression)	Condition: raised in attempt to write past the PAGE-SIZE limit. ON ENDPAGE(PRINTER) PUT FILE(PRINTER) PAGE EDIT(HEADING) (A);	FIXED (x_1 , [x_2 , x_3])	Built-in function: converts x_1 to fixed-point with a resulting precision given by x_2 and scale factor x_3 . If x_2 and x_3 are omitted, default precision is assumed. If x_3 is omitted, zero is assumed. $T3A=FIXED(1,6,5)/T3$;
ENTRY	Statement: specifies secondary entry point to a procedure. A3:ENTRY;	FIXEDOVERFLOW FOFL	Condition/Condition prefix: occurs when length of FIXED result exceeds implemented maximum. ON FOFL PUT DATA(A,B,C);
ENTRY([parameter-descriptor-list])	Attribute: specifies identifier to be an external entry constant or an entry variable. DCL TEST ENTRY(DEC FIXED(4));	FLOAT	Attribute: specifies that a variable represents a floating-point data item. DCL A FLOAT(8);
ENVIRONMENT(option-list)	Attribute/Option of CLOSE: describes data set or file characteristics.	FLOAT(x_1 , [x_2])	Built-in function: converts x_1 to floating-point scale with a resulting precision given by x_2 . If x_2 is omitted, default precision is assumed. CALL PB2(FLOAT(C));
ENV(option-list)	DCL LIST FILE STREAM ENV(CONSECUTIVE F RECSIZE(80));	FLOOR(x)	Built-in function: returns largest integer not exceeding x. DO 1=FLOOR(K/2) TO FLOOR(K);
ERF(x)	Built-in function: returns the value of the error function for x. S=ERF(8);	FLOW	Statement (checkout compiler only): causes information about subsequent transfers of control within a task to be written out. ERRPRINT: FLOW;
ERFC(x)	Built-in function: returns the value 1-ERF(x).	FLOW([n])	Option of PUT (checkout compiler only): lists last n transfers of control. PUT FLOW(10);
ERROR	Condition: raised by an error for which there is no specific condition or by standard system action. ON ERROR SNAP SYSTEM;	FORMAT	Statement: specifies remote format list for edit-directed transmission. PUT EDIT (KTOWN) (R(FOR)); . . FOR:FORMAT(SKIP, COL(5),A(14)); Option of %CONTROL: reactivates FORMAT compiler option.
EVENT	Attribute: specifies identifier as an event name. DCL S1 EVENT EXT;	FORTRAN	Option of OPTIONS attribute: specifies that the designated entry point is in a FORTRAN routine. DCL FE ENTRY OPTIONS(FORTRAN); Option of OPTIONS option: specifies that the entry point is to be invoked only by a FORTRAN routine. F:PROC OPTIONS(FORTRAN);
EVENT(event-name)	Option of READ, WRITE, REWRITE, DELETE, DISPLAY, and CALL: specifies that associated event is to be executed asynchronously. DCL E1 EVENT; READ FILE(A)INTO(B) EVENT(C);	FREE	Statement: frees based or controlled storage. FREE A,B,C;
EXCLUSIVE EXCL	Attribute: specifies that each record is locked while being accessed, to prevent interference by another task. DCL BALANCE FILE EXCL DIRECT UPDATE...;	FROM(variable)	Option of WRITE or REWRITE: specifies the variable to be written into a data set. WRITE FILE (MASTER) FROM (BB);
EXIT	Statement: terminates task in which it is contained and all subtasks. IF COMPLETION(OUTP)='1'B & COMPLETION(INP)='0'B THEN EXIT;	FS	Option of ENV: specifies fixed-length standard-format unblocked records. ENV(. . .FS RECSIZE(120) CONSECUTIVE. . .)
EXP(x)	Built-in function: returns e^{**x} where e is base of natural logarithms. CALL MPI(EXP(X1+X2));	GENERIC	Attribute: defines a name as a family of entry points. DCL COMP GENERIC (A WHEN(FIXED), B WHEN(FLOAT));
EXTERNAL EXT	Attribute: indicates identifier is known in other external procedures in which it has the EXTERNAL attribute. DCL A CHAR(10)EXT;	GENKEY	Option of ENV: indicates that records on data set are to be selected according to initial character(s) of recorded keys. DCL IND SEQUENTIAL KEYED INPUT FILE ENV (INDEXED GENKEY KEYLENGTH(6) F. . .); READ FILE(IND) INTO(INFIELD) KEY('POP');
F(w,[d],[s])	Format item: indicates w characters in data stream to be decimal arithmetic data in fixed point format; w=width, d=digits after decimal point, s=scaling factor. If d or s is omitted, zero is assumed. PUT EDIT (HRS) (F(4,2));	GET	Statement: used for stream-oriented input or for data movement in main storage. GET DATA; GET LIST (A,B,C); GET STRING(STR) EDIT(A,B)(A(10),A(7));
F	Option of ENV: specifies fixed-length unblocked records. ENV(. . .F RECSIZE(80). . .)	GO TO GOTO	Statement: transfers control to a specified label, or in immediate mode (checkout compiler only), a specified statement number. GOTO LOOP; request restart of execution. GO TO 0;
FB	Option of ENV: specifies fixed-length blocked records. ENV(. . .FB BLKSIZE(480) RECSIZE(60). . .)	%GO TO %GOTO	Preprocessor statement: causes preprocessor to continue scan at specified preprocessor label. %GOTO CALC;
FBS	Option of ENV: specifies fixed-length standard-format blocked records. ENV(. . .FBS BLKSIZE(480) RECSIZE(60) CONSECUTIVE. . .)	HALT	Statement: interrupts execution when in conversational mode (checkout compiler only) and passes control to terminal. Is a null statement in batch mode. MODE_PGM: HALT;
FETCH	Statement: copies procedure from auxiliary to main storage. FETCH PROCX;	HBOUND(x_1 , x_2)	Built-in function: returns current upper bound of dimension x_2 of array x_1 . SUBSTR(A,1,HBOUND(AZ,1)) = STRING(AZ);
FILE	Attribute: specifies an identifier as a file constant or variable. DCL TAX FILE, . . .;		
FILE(file-expression)	Option of input/output statements and OPEN, CLOSE; specifies file to be operated on. GET FILE (REPORT) LIST (A,B);		
FINISH	Condition: raised by standard system action for the ERROR condition in the major task, by the END or RETURN statement of the initial procedure, by STOP in any task or by EXIT in the major task. ON FINISH PUT DATA (SUMMARY);		
FIXED	Attribute: specifies that a variable represents a fixed-point data item. DCL A FIXED(3,1);		

HIGH(x)	Built-in function: returns a character string of length x, each character being the highest character of the collating sequence (i.e., hexadecimal FF). IF INSTR.CDE=999 THEN INSTR.SEQ=HIGH (1);
IF	Statement: specifies a condition action. IF A>15 THEN GOTO OUT;
%IF	Preprocessor statement: same as IF.
IGNORE(n)	Option of READ: ignores n records in input file. READ FILE (AU) IGNORE(N);
IMAG(x)	Built-in function/Pseudovalue: refers to imaginary part of complex expression x. IMAG(A1)=IMAG((A+21)/1B);
IN (element-area-variable)	Option of ALLOCATE and FREE: specifies storage in an area variable. ALLOCATE B SET (P) IN (A);
%INCLUDE	Preprocessor statement: includes strings of external text in source program. %INCLUDE LIB1 (ABC);
INDEX(x ₁ ,x ₂)	Built-in function: returns the starting position of the string x ₂ within string x ₁ ; returns 0 if x ₂ not present in x ₁ . IF INDEX(REC,'DUP') = 0 THEN GO TO RD;
INDEXAREA[(n)]	Option of ENV: causes the highest level of index to be placed in main storage provided, if n is specified, that the size does not exceed n bytes. ENV(. . .INDEXAREA(1000) . . .)
INDEXED	Option of ENV: indicates file is used to process an indexed data set. ENV(. . .INDEXED. . .)
INITIAL (item[,item] . . .) INIT(item [,item] . . .)	Attribute: specifies initial values for data items. DCL TAB (48) INIT ((48)0); DCL X(10,10) INIT CALL XINIT;
INPUT	Attribute/Option of OPEN: indicates file to be used for input. DCL IN FILE INPUT . . . ;OPEN FILE(IN) INPUT;
INTER	Option of OPTIONS attribute: specifies that any interrupts not handled by COBOL or FORTRAN are handled by PL/I. DCL CALC ENTRY OPTIONS(INTER FORTRAN);
INTERNAL INT	Attribute: indicates variable known only within block in which declared and within contained blocks. DCL A CHAR(6) INT;
INTO(variable)	Option of READ: specifies the variable to which a record is to be assigned. READ FILE (TAX) INTO (RANGE);
IRREDUCIBLE IRRED	Attribute/Option of PROC or ENTRY: specifies that function is to be invoked even if previously invoked with same argument list values. Applied by default to entry names. DCL QT ENTRY IRRED;
KEY(file-expression)	Condition: raised by use of invalid key in a record I/O statement. ON KEY(FILE1) PUT SKIP EDIT('INVALID KEY: ONKEY) (A(12));
KEY(x)	Option of READ, DELETE, REWRITE, or UNLOCK: identifies which record is processed. READ FILE(TAX) KEY(YEAR) TO(ALA);

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KEYED	Attribute: specifies that one of the options KEY, KEYTO, or KEYFROM may be used in an I/O statement accessing the file. DCL INV FILE KEYED ...;	MULTIPLY ($x_1, x_2, x_3 [, x_4]$)	Built-in function: multiplies x_1 by x_2 with a resulting precision given by x_3 and scale factor x_4 . x_4 must be omitted if x_1 or x_2 is floating point. TMT1=MULTIPLY(TOT,NUM,31,16)/T;
KEYFROM(x)	Option of WRITE or LOCATE: specifies the key of a new record to be written to a file. WRITE FILE(M) FROM(U) KEYFROM(B);	NAME(file-expression)	Condition: raised during a data-directed GET FILE statement when an invalid identifier occurs in the data stream. ON NAME (INFILE) PUT SKIP EDIT('UNKNOWN:', DATAFIELD)(A);
KEYLENGTH(n)	Option of ENV: specifies length of recorded key in REGIONAL(2), REGIONAL(3), and INDEXED data sets. ENV(...KEYLENGTH(24)...)	NCP(n)	Option of ENV: specifies maximum number of outstanding event I/O operations. ENV(...NCP(9)...)
KEYLOC(n)	Option of ENV: specifies start position of an embedded key in a record on an INDEXED data set. ENV(...KEYLOC(2)...)	NOCHECK [(name-list)]	Statement (checkout compiler only): dynamically disables CHECK condition for specified or assumed names. NOCHECK(NAME, HRS, TOT_PAY);
KEYTO(variable)	Option of READ: specifies variable to which the key of the record is to be assigned. READ FILE(M) INTO(B) KEYTO(U);	NOcondition-name	Condition-name: disables the named condition. The following prefixes may be specified: NOCHECK[(name-list)] NOCONVERSION (or NOCONV) NOFIXEDOVERFLOW (or NOFOFL) NOOVERFLOW (or NOOFL) NOSIZE NOSTRINGRANGE (or NOSTRG) NOSTRINGSIZE (or NOSTRZ) NOSUBSCRIPTRANGE (or NOSUBRG) NOUNDERFLOW (or NOUFL) NOZERODIVIDE (or NOZDIV) (NOCHECK(X)): P:PROC;(NOSTRG):ST=AIB; X=Y+Z; ...END;
LABEL [(label-const [,label-const]...)]	Attribute: specifies an identifier as label variable. Optimization is aided by including a list of label constants that the variable may take as values. DCL DOG LABEL (D1,D2);	NOFLOW	Statement (checkout compiler only): suppresses action of FLOW statement. NOFLOW;
LBOUND(x_1, x_2)	Built-in function: finds current lower bound for dimension x_2 of array x_1 . LIST(LBOUND(LIST,1))=0;	NOFORMAT	Option of %CONTROL: deactivates FORMAT compiler option.
LEAVE	Option of ENV: specifies no rewind for tape data sets. CLOSE FILE(OP) ENV(LEAVE);	NOLOCK	Option of READ: suppresses locking of record being read by EXCLUSIVE file. READ FILE(STOCK) INTO(TYPES) KEY(KSTRING3) NOLOCK;
LENGTH(x)	Built-in function: gives current length of string x. SUBSTR(NS,2,LENGTH(S))=S;	NOMAP[(arg-list)]	Option of OPTIONS option/attribute: specifies no dummy argument is created on invocation between PL/I and FORTRAN or PL/I and COBOL, even if the mapping of an aggregate argument differs. See NOMAPIN for example. See also ARGn.
LIKE	Attribute: specifies identical structuring. DCL 1 A EXTERNAL, 2 (B,C,D), 1 E LIKE A;	NOMAPIN[(arg-list)]	Option of OPTIONS option/attribute: specifies that a dummy argument, if created, is not initialized. See also ARGn. DCL COBOLA OPTIONS(COBOL NOMAP(ARG1) (NOMAPIN(ARG3)); E:ENTRY(A,B,C) OPTIONS (FORTRAN NOMAP(A) NOMAPIN(B) NOMAPOUT(C));
LINE(n)	Option of PUT/Format item: prints on nth line. PUT LIST(X) LINE(7); PUT EDIT(A,B) (LINE(5),A(6),F(2));	NOMAPOUT[(arg-list)]	Option of OPTIONS option/attribute: specifies that if a dummy argument is created, it is not to be assigned to the original aggregate argument on return. See NOMAPIN for example. See also ARGn.
LINENO(x)	Built-in function: returns current line number of PRINT file x. IF LINENO(OUT)=N THEN PUT FILE(OUT) PAGE;	NORESCAN	Option of %ACT: specifies replacement of identifier in output stream. Specifies no rescanning of text for further replacement. %ACT 1 NORESCAN;
LINESIZE(n)	Option of OPEN: specifies number of character positions in a line of a STREAM OUTPUT file. OPEN FILE(SALES) LINESIZE(99);	NOWRITE	Option of ENV: specifies that no records will be added to a DIRECT UPDATE file with INDEXED organization. ENV(...NOWRITE...)
LIST	Option of GET or PUT: specifies list-directed transmission. Keyword can be omitted. GET (X); GET LIST(A,B); PUT FILE(WRITER) LIST(D,E);	NULL	Built-in function: returns a null locate value. P=NULL;
LOCATE	Statement: causes allocation of a based variable in an output buffer and subsequent transmission. LOCATE ITEM SET(Q) FILE(PATIENT);	OFFSET[(element-area-variable)]	Attribute: specifies that the variable identifies a location relative to the start of an area. DCL DATA AREA(50), (L1,L2) OFFSET(DATA);
LOG(x)	Built-in function: returns logarithm of x to base e. L=LOG(A+B);	OFFSET(x_1, x_2)	Built-in function: returns an offset value, relative to the start of area x_2 , that identifies the generation identified by pointer x_1 . LOC=OFFSET(P1,TAB);
LOG2(x)	Built-in function: returns logarithm of x to base 2. L=LOG2(A+B);	ON	Statement: specifies action to be taken for a specified condition. ON FOFL BEGIN; ...END;
LOG10(x)	Built-in function: returns logarithm of x to base 10. L=LOG10(A+B);		
LOW(x)	Built-in function: returns a character string of length x, each character being the lowest character of the collating sequence (i.e., hexadecimal 00). IF SUBSTR(RECD,1,1)=LOW(1) THEN GO TO ENDR;		
MAIN	Option of OPTIONS option: identifies initial procedure. FIRST: PROCEDURE OPTIONS(MAIN);		
MAX(x_1, x_2, \dots, x_n)	Built-in function: returns the value of the highest-valued expression. DO I=1 TO MAX(DF,DG,DH);		
MIN(x_1, x_2, \dots, x_n)	Built-in function: returns the value of the lowest-valued expression. DO WHILE(MIN(Y1,Y2)>10);		
MOD(x_1, x_2)	Built-in function: returns the smallest positive value, R, such that: (x_1-R)/ $x_2=n$ where n is an integer. If x_1 is positive, result is remainder from x_1/x_2 . SUBSTR(SED,MOD(X,256))=SEE;		

ONCHAR Built-in function/Pseudovisible: refers to character causing CONVERSION condition.
ON CONV BEGIN; IF ONCHAR='A' THEN
ONCHAR='1'; ...;END;

ONCODE Built-in function: identifies type of interrupt that activated the on-unit.
ON KEY (NEWMAS) BEGIN;
IF ONCODE=52 THEN. ...;END;

ONCOUNT Built-in function: specifies number of interrupts remaining to be handled. PUT LIST(ONCOUNT);

ONFILE Built-in function: gives name of file for which I/O condition was raised.
ON CONVERSION BEGIN;
IF ONFILE='INFILE' THEN ...;END;

ONKEY Built-in function: returns a character string whose value is the key of the record that caused an I/O condition to be raised.
ON RECORD(F) PUT LIST('ERROR IN RECORD'ONKEY);

ONLOC Built-in function: gives name of entry point to procedure in which the on-condition was raised.
ON NAME BEGIN;IF ONLOC='SORT' THEN
...;END;

ONSOURCE Built-in function/Pseudovisible: refers to contents of field that was being processed when the CONVERSION condition was raised.
ON CONV BEGIN;IF ONSOURCE '=' 'ABC' THEN
PUT LIST (ONSOURCE); ...;END;

OPEN Statement: associates a file with a data set, and initiates the data set for access.
OPEN FILE(FILE1) INPUT, FILE(FILE2)
OUTPUT;

OPTIONS(option-list) Option of PROC and ENTRY statement: specifies implementation-defined options.
FIRST:PROC OPTIONS (MAIN);
CBL:ENTRY OPTIONS(COBOL);
Attribute: DCL FOR ENTRY OPTIONS(FORTRAN);

ORDER Option of PROC and BEGIN: specifies no relaxation of language rules to assist optimization of a block.
E:PROC OPTIONS(MAIN) ORDER;

OUTPUT Attribute/Option of OPEN: indicates file is to be used for output. DCL F FILE STREAM OUTPUT;
OPEN FILE(REPORT) OUTPUT;

OVERFLOW OFL Condition/Condition prefix: occurs when magnitude of floating-point number exceeds implementation limit. ON OFL GOTO D1;

P'picture spec' Format item: describes character representation of data. PUT EDIT(PAY)(P'\$\$\$,\$\$9.99');

PAGE Option of PUT/Format item: specifies new page with PRINT files.
PUT LIST(A,B,C) PAGE;
PUT EDIT(VAL,STI)(F(8,2),PAGE,A(3));

%PAGE Listing control statement: causes new page to be started in program listing. Applies to source listing, and, if preprocessor used, insource listing. %PAGE;

PAGESIZE(w) Option of OPEN: specifies number of lines per page for a PRINT file.
OPEN FILE(REPORT) PAGESIZE(50);

PASSWORD (password specification) Option of ENV: specifies security control information required to access a VSAM data set.
...ENV(...PASSWORD('FILELOCK'). ...)

PENDING(file-expression) Condition: raised by attempt to read TRANSIENT file when message queue empty.
ON PENDING (Q1) GO TO TRYQ2;

PICTURE'picture spec' Attribute: specifies character representation of data.
DCL FORM PICTURE'AA(3)X99X(4)9';

PIC'picture spec'

POINTER PTR Attribute: specifies pointer variable.
DCL P POINTER;

POINTER(x₁,x₂) PTR(x₁,x₂) Built-in function: returns a pointer value that identifies, in area x₁, a generation equivalent to the generation originally identified by the offset x₁.
G=POINTER(DISP,TAB);

POLY(x₁,x₂) Built-in function: returns the value of a polynomial derived from x₁ and x₂. A=POLY(TAB1,TAB2);

POSITION(n) POS(n) Attribute: specifies beginning of DEFINED string within base string.
DCL B CHAR(3) DEFINED C POS(3);

PRECISION(x₁,x₂ [,x₃]) PREC(x₁,x₂ [,x₃]) Built-in function: converts x₁ to a precision given by x₂ and scale factor x₃. x₃ must be omitted if x₁ is floating point. DCL A FIXED DEC(5,0);
DO I=1 TO PREC(A/2,4,0); ...

PRINT Attribute: specifies that data of a file will ultimately be printed. DCL P1 FILE PRINT ...;

PRIORITY[{(x)}] Built-in function/Pseudovisible: refers to priority of task x relative to current task. x is mandatory with built-in function, optional with pseudovisible.
PRIORITY(TB) = PRIORITY(TA)+1;

PRIORITY(x) Option of CALL: determines relative priority of task attached by CALL. CALL PROGC PRIORITY (-1);

PROCEDURE PROC Statement: identifies and defines primary entry points and characteristics of procedures.
FIRST:PROC OPTIONS(MAIN);

%PROCEDURE %PROC Preprocessor statement: used in conjunction with %END to delimit a preprocessor proced ire.
%H:PROC(HEX) RETURNS(CHAR); ...;
%END H;

PROD(x) Built-in function: returns product of all the elements of array x. PRODUCT=PROD(TABLE);

PUT Statement: used for stream-oriented output or for data movement in main storage.
PUT DATA;PUT LIST (A,B);
PUT STRING(STR) EDIT (S1,S2) (A);

R(x) Format item: specifies the label of a FORMAT statement that is remote from a format list.
F1:FORMAT(A(9),F(Y); ...
PUT EDIT(NAME,CODE)(R(F1));

RANGE Option of DEFAULT: specifies the range of initial characters of identifiers to which the DEFAULT specifications apply.
DEFAULT RANGE(X:Y) FIXED;
DEFAULT RANGE (COUNT) BIN;
DEFAULT RANGE(*) STATIC;

READ Statement: transfers a record from RECORD INPUT or RECORD UPDATE file to a variable or a buffer.
READ FILE(FBI) INTO(EXEC);
READ FILE(UPDATE) SET (REC_P);

REAL Attribute: specifies mode of arithmetic data as real.
DCL A COMPLEX, B REAL;

REAL(x) Built-in function/Pseudovisible: refers to the real part of the complex expression x.
REAL(Q)=REAL(B+C);

RECORD Attribute: specifies that data in a file is to be transmitted record by record. DCL MASTER RECORD. ...;

RECORD(file-expression) Condition: raised if size of record and variable do not correspond.
ON RECORD(NEWINFO) BEGIN; ...;END;

RECSIZE(n) Option of ENV: specifies record length (maximum length for U-,V-, or VB-format).
ENV(...RECSIZE(8) ...)

RECURSIVE Option of PROC: allows procedure to invoke itself.
POW:PROC RECURSIVE; ...;CALL POW; ...;
END POW;

REDUCIBLE RED	Attribute/Option of PROC and ENTRY statement: indicates result of earlier evaluation of the function may be used. ENTRY1:ENTRY RETURNS(FIXED) RED; DCL E ENTRY RED;	SIGN(x)	Built-in function: returns sign of expression (x) as binary 1 if $x > 0$, 0 if $x = 0$, -1 if $x < 0$. DO X=0 BY SIGN(A-B) TO SIGN(A-B)*10;
REENTRANT	Option of OPTIONS option: allows a procedure to be reactivated when already active in another task. E:PROC OPTIONS(REENTRANT);	SIGNAL	Statement: simulates occurrence of named condition. SIGNAL ENDFILE(SALES);
REFER	Option of BASED attribute: used in a declaration of a based structure to indicate that a length, bound, or size is defined by another member of the structure. DCL 1 STR BASED(P), 2 X, 2 Y (L REFER (X));	SIN(x)	Built-in function: gives sine of x where x is in radians. B=SIN(TAN(Q));
REGIONAL (1 2 3)	Option of ENV: specifies regional organization of data set on direct access device. REGIONAL(1) has one record per region with no recorded key; REGIONAL(2) has one record per region, with a recorded key; REGIONAL(3) has one or more records per region, with recorded keys, and each region occupies one track. ENV(. . . REGIONAL(1). . .)	SIND(x)	Built-in function: gives sine of x where x is in degrees. B=SIND(TAN(Q)/COS(A));
RELEASE	Statement: frees storage allocated to specified fetched procedure. RELEASE PROCX;	SINH(x)	Built-in function: gives hyperbolic sine of x. B=SINH(Q*P);
REORDER	Option of PROC and BEGIN: specifies relaxation of language rules to permit optimization of block. P:PROC REORDER; . . . END;	SIZE	Condition/Condition prefix: raised when high-order digits are lost on assignment or during an arithmetic or I/O operation. ON SIZE P=Q;
REPEAT(x_1, x_2)	Built-in function: returns the string x_1 concatenated with itself x_2 times. A=REPEAT(STR,2); (e.g., if STR='10'B then A='101010'B);	SKIP(n)	Option of GET and PUT/Format item: causes transmission to continue from start of nth line after current one. Default for n is 1. PUT SKIP(2); PUT EDIT(ST1,ST2) (A,SKIP,A);
REPLY(variable)	Option of DISPLAY: the character-string variable receives a message from the operator. DISPLAY('EOF') REPLY(MSG);	%SKIP[n]	Listing control statement: causes line skips in program listing; listing recommences on nth succeeding line. Applies to source listing and, if preprocessor used, insource listing. Default for n is 1. %SKIP(2);
REREAD	Option of ENV: repositions magnetic tape for reprocessing at end of volume or data set. DCL FILE SEQUENTIAL UPDATE ENV(FB REREAD CONSECUTIVE);	SNAP	Option of PUT (checkout compiler only) and ON: lists all currently active blocks, and statements most recently executed. ON FOFL SNAP GOTO ERR2;
RESCAN	Option of %ACT: specifies that replacement strings will themselves be scanned. . . %ACT I RESCAN; . . . ;	SQRT(x)	Built-in function: gives positive square root of x. (If x is complex, gives principal value.) R=SQRT(M/MO+M);
RETURN	Statement: terminates execution of its procedure. For a function procedure, an expression must be included. RETURN;RETURN(2*P+Q);	STATIC	Attribute: specifies storage is allocated before execution and remains allocated throughout execution. DCL TABLE (6,6) STATIC;
RETURNS (attribute-list)	Attribute/Option of PROC or ENTRY statement: specifies data attributes of a returned value. DCL A ENTRY RETURNS(FIXED); F:PROC RETURNS(FIXED);	STATUS(x)	Built-in function/Pseudovalue: refers to status value of event variable (x). IF STATUS(T)=0 THEN. . . ;
REVERT	Statement: cancels effect of ON statement for a specified condition in the current block, and re-establishes the action specifications that existed at the activation of the block. REVERT ENDFILE(IN);	STOP	Statement: causes abnormal termination of program. STOP;
REWRITE	Statement: replaces an existing record in an UPDATE file. REWRITE FILE(D2) KEY(APT) FROM(LIST);	STREAM	Attribute: specifies data in a file is to be transmitted as a continuous stream of data items in character form. DCL MASTER STREAM. . . ;
ROUND(x, x_1)	Built-in function: rounds value of x_1 on the (x_2)th digit to left (x_2 negative) or right (x_2 positive) of the decimal or binary point for a fixed-point value. For a floating-point value, the rightmost bit of the mantissa is set to 1 (x_2 is ignored). CALL CTR(ROUND(A,16));	STRING(x)	Built-in function/Pseudovalue: refers to all elements of aggregate x as a single string. DCL (ST(5), CS) CHAR(10) VAR; . . . CS=STRING(ST);
SCALARVARYING	Option of ENV: permits use of locate-mode I/O with element varying-length strings. The two-byte length prefix is transmitted. ENV(. . . SCALARVARYING. . .)	STRING(string-name)	Option of GET and PUT: data is to be formatted and (for PUT STRING) assigned to a string variable or (for GET STRING) obtained from a string expression. Data is not transmitted to a data set. GET STRING(STR) EDIT(A1,A2) (A(20),F(4,2));
SEQUENTIAL SEQL	Attribute: indicates access to records of file in physical order (for CONSECUTIVE and REGIONAL data sets) or logical order (for INDEXED data sets). DCL TEAM FILE SEQL. . . ;	STRINGRANGE STRG	Condition/Condition prefix: raised if values of arguments to SUBSTR reference are improper. STRG: SUBSTR(S1,I,J)=SUBSTR(S2,I,J);
SET(locator- variable)	Option of READ, ALLOCATE, and LOCATE: specifies the locator variable that is to identify a new generation of a based variable. DCL VAL BASED; ALLOCATE VAL SET (P);	STRINGSIZE STRZ	Condition/Condition prefix: raised when a string is assigned to a shorter string. (STRZ):A=BIC;
		ISUB	Dummy variable of DEFINED: defines array consisting of designated elements from a base array. DCL B (2,5), Y(5,2) DEF B(2SUB,1SUB);
		SUBSCRIPTRANGE SUBRG	Condition/Condition prefix: raised when subscript value is outside dimensions of array. ON SUBRG PUT DATA (I,J);
		SUBSTR ($x_1, x_2, [x_3]$)	Built-in function/Pseudovalue: refers to a substring of length x_2 starting at position x_2 of x_1 . If x_3 is omitted, the remainder of the string is included. A=SUBSTRIN(4,6);
		SUM(x)	Built-in function: gives sum of all elements of array x. T=SUM(TABLE);

SYSIN	File name: specifies standard system input file; supplied by default for GET statement. GET EDIT (N,M) (A(5), F(2)); GET FILE(SYSIN) DATA(A,B);	UNBUFFERED UNBUF	Attribute: specifies that records need not pass through intermediate storage. DCL CASH FILE UPDATE UNBUF. . . ;
SYSPRINT	File name: specifies standard system output file; supplied by default for PUT statement. A reserved word under the checkout compiler. PUT EDIT (N,M) (A(5), F(2)); PUT FILE(SYSPRINT) LIST(X,Y);	UNDEFINEDFILE (file-expression) UNDF (file-expression) UNDERFLOW UFL	Condition: raised if file named cannot be opened. ON UNDF(MASTER) GO TO STOPRUN;
SYSTEM	Option of ON: specifies standard system action for interrupt. ON ERROR SNAP SYSTEM; Option of DCL: specifies standard defaults are to be taken. DCL X(5) SYSTEM;	UNLOCK	Statement: unlocks a locked record accessed by a DIRECT UPDATE EXCLUSIVE file. READ FILE (CURRENT) INTO (HOLD) KEY(K); UNLOCK FILE (CURRENT) KEY(K);
TAN(x)	Built-in function: gives tangent of x where x is in radians. A=TAN(B/C);	UNSPEC(x)	Built-in function/Pseudovalue: refers to the internal code representation of the value of the expression x, as a bit string. M=UNSPEC(ITEM);
TAND(x)	Built-in function: gives tangent of x where x is in degrees. A=TAND(B/C);	UPDATE	Attribute: specifies that file is used for both input and output. DCL F FILE UPDATE. . . ;
TANH(x)	Built-in function: gives hyperbolic tangent of x. A=TANH(B/C);	V	Option of ENV: specifies variable-length unblocked records. ENV(. . . V RECSIZE(64). . .)
TASK	Attribute: specifies that identifier is task name and may be used to determine or modify relative priority of task, using PRIORITY built-in function/pseudovalue. DCL TX TASK: . . PRIORITY(TX)=1; Option of OPTIONS option: indicates that PL/I multitasking facilities may be used during execution of procedure. DRCTR: PROC OPTIONS(MAIN,TASK);	VALUE	Option of DEFAULT: establishes any default rules for a string length, area size, or precision. DEFAULT RANGE(A:C) VALUE(FIXED DEC(10), FLOAT DEC(14), AREA(2000));
TASK [(task-name)]	Option of CALL: specifies that invoked procedure is a subtask. CALL WRITER TASK(VT1); . . .	VARIABLE	Attribute: identifies associated item to be a variable. May be specified only for file, entry, or label variables. DCL G FILE VARIABLE;
THEN	Clause of IF: defines action to be taken if value of expression contains '1'B. IF A=B THEN DO; . . .END;ELSE. . . ;	VARYING VAR	Attribute: specifies string to be of varying (maximum given) length. DCL NAME CHAR(25) VAR;
%THEN	Clause of %IF: same as THEN.	VB	Option of ENV: specifies variable-length blocked records. ENV(. . . VB BLKSIZE(128). . .)
TIME	Built-in function: provides current time in character-string form, hhmmsssttt for hours, minutes, seconds, milliseconds. PUT LIST (TIME ());	VBS	Option of ENV: specifies spanned variable-length blocked records. ENV(. . . VBS. . .)
TITLE(x)	Option of OPEN: identifies data set associated with a file. OPEN FILE(W) TITLE('SUPER');	VERIFY (x₁,x₂)	Built-in function: indicates the position in string x ₁ of the first character or bit that is not in string x ₂ . If all characters in x ₁ are contained in x ₂ , result is zero. IF VERIFY(NAME,ALPHABET) THEN GO TO ERR;
TO	Option of DO: specifies limit of control variable. DO I=1 to 10; . . .END; Option of repetitive specification: GET LIST(N,(A(I) DO I=1 TO N));	VS	Option of ENV: specifies spanned variable-length unblocked records. ENV(. . . RECSIZE(80) VS. . .)
TOTAL	Option of ENV: indicates that no attributes are to be merged when the file is opened. ENV(. . . TOTAL. . .)	VSAM	Option of ENV: causes VSAM input/output macros to be used for a file. . . ENV(. . . VSAM. . .)
TP(M/R)	Option of ENV: indicates each I/O operation in a teleprocessing program transmits a complete message (M) or one logical record (R). ENV(. . . TP(R). . .)	WAIT	Statement: suspends other operations until a specified number or, if no number specified, all the named events are complete. WAIT (E1,E2,E3)(2);
TRANSIENT	Attribute: specifies file is to be used for teleprocessing. DCL MESSAGE TRANSIENT INPUT FILE KEYED BUF ENV(TP(M) RECSIZE(64) BUFFERS(4));	WHEN (generic-descriptor-list)	Option in GENERIC: allows selection of generic entry-expression by providing descriptor list. DCL B GENERIC (C WHEN(FIXED), D WHEN(FLOAT));
TRANSLATE (x ₁ ,x ₂ [,x ₃])	Built-in function: translates source string x ₁ according to replacement string x ₂ and position string x ₃ . If x ₃ is omitted, string containing all possible characters (in ascending order) is assumed. W=TRANSLATE(W,NEWCHARS,OLDCHARS);	WHILE	Option of DO/Repetitive specification: specifies condition for execution of do-group. DO I=1 TO 26 WHILE (X<Y); . . .END; PUT DATA((A(J) DO J=1 BY 2 WHILE (J<N));
TRANSMIT (file-expression)	Condition: raised by a permanent I/O transmission error. ON TRANSMIT (PAYROLL) GO TO X;	WRITE	Statement: transfers a variable from main storage to RECORD OUTPUT or UPDATE file. WRITE FILE(SALES) FROM (LOG);
TRKOFL	Option of ENV: specifies that track overflow feature of the system may be employed. ENV(. . . TRKOFL. . .)	X(w)	Format item: specifies number of blanks to be transmitted on output or number of input characters to be skipped. PUT EDIT (NAME,ADDR) (A(20),X(5),A(10));
TRUNC(x)	Built-in function: truncates value of x to FLOOR(x) if x>0, CEIL(x) if x<0. S=TRUNC(B);	ZERODIVIDE ZDIV	Condition/Condition prefix: raised by attempt to divide by zero. ON ZDIV SYSTEM;
U	Option of ENV: specifies undefined-length records. ENV(. . . U RECSIZE(480). . .)		
UNALIGNED UNAL	Attribute: specifies mapping of data elements is to be independent of alignment requirement of data type. DCL 1 A UNAL, 2 (B CHAR(3),C);		

SYSIN	File name: specifies standard system input file; supplied by default for GET statement. GET EDIT (N,M) (A(5), F(2)); GET FILE(SYSIN) DATA(A,B);	UNBUFFERED UNBUF	Attribute: specifies that records need not pass through intermediate storage. DCL CASH FILE UPDATE UNBUF. . .;
SYSPRINT	File name: specifies standard system output file; supplied by default for PUT statement. A reserved word under the checkout compiler. PUT EDIT (N,M) (A(5), F(2)); PUT FILE(SYSPRINT) LIST(X,Y);	UNDEFINEDFILE (file-expression) UNDF(file-expression)	Condition: raised if file named cannot be opened. ON UNDF(MASTER) GO TO STOPRUN;
SYSTEM	Option of ON: specifies standard system action for interrupt. ON ERROR SNAP SYSTEM; Option of DCL: specifies standard defaults are to be taken. DCL X(5) SYSTEM;	UNDERFLOW UFL	Condition/Condition prefix: raised when exponent of floating-point number is less than implementation minimum. ON UFL GOTO #3STEP;
TAN(x)	Built-in function: gives tangent of x where x is in radians. A=TAN(B/C);	UNLOCK	Statement: unlocks a locked record accessed by a DIRECT UPDATE EXCLUSIVE file. READ FILE (CURRENT) INTO (HOLD) KEY(K); UNLOCK FILE (CURRENT) KEY(K);
TAND(x)	Built-in function: gives tangent of x where x is in degrees. A=TAND(B/C);	UNSPEC(x)	Built-in function/Pseudovalue: refers to the internal code representation of the value of the expression x, as a bit string. M=UNSPEC(ITEM);
TANH(x)	Built-in function: gives hyperbolic tangent of x. A=TANH(B/C);	UPDATE	Attribute: specifies that file is used for both input and output. DCL F FILE UPDATE. . .;
TASK	Attribute: specifies that identifier is task name and may be used to determine or modify relative priority of task, using PRIORITY built-in function/pseudovalue. DCL TX TASK; . . . PRIORITY(TX)=1; Option of OPTIONS option: indicates that PL/I multitasking facilities may be used during execution of procedure. DRCTR: PROC OPTIONS(MAIN,TASK);	V	Option of ENV: specifies variable-length unblocked records. ENV(. . . V RECSIZE(64) . . .)
TASK([task-name])	Option of CALL: specifies that invoked procedure is a subtask. CALL WRITER TASK(VT1); . . .	VALUE	Option of DEFAULT: establishes any default rules for a string length, area size, or precision. DEFAULT RANGE(A:C) VALUE(FIXED DEC(10), FLOAT DEC(14), AREA(2000));
THEN	Clause of IF: defines action to be taken if value of expression contains '1'B. IF A=B THEN DO; . . . END; ELSE; . . .;	VARIABLE	Attribute: identifies associated item to be a variable. May be specified only for file, entry, or label variables. DCL G FILE VARIABLE;
%THEN	Clause of %IF: same as THEN.	VARYING VAR	Attribute: specifies string to be of varying (maximum given) length. DCL NAME CHAR(25) VAR;
TIME	Built-in function: provides current time in character-string form, hhmmsssttt for hours, minutes, seconds, milliseconds. PUT LIST (TIME ());	VB	Option of ENV: specifies variable-length blocked records. ENV(. . . VB BLKSIZE(128) . . .)
TITLE(x)	Option of OPEN: identifies data set associated with a file. OPEN FILE(W) TITLE('SUPER');	VBS	Option of ENV: specifies spanned variable-length blocked records. ENV(. . . VBS . . .)
TO	Option of DO: specifies limit of control variable. DO I=1 to 10; . . . END; Option of repetitive specification: GET LIST(N,(A(I) DO I=1 TO N));	VERIFY (x ₁ ,x ₂)	Built-in function: indicates the position in string x ₁ of the first character or bit that is not in string x ₂ . If all characters in x ₁ are contained in x ₂ , result is zero. IF VERIFY(NAME,ALPHABET) THEN GO TO ERR;
TOTAL	Option of ENV: indicates that no attributes are to be merged when the file is opened. ENV(. . . TOTAL . . .)	VS	Option of ENV: specifies spanned variable-length unblocked records. ENV(. . . RECSIZE(80) VS . . .)
TP(M/R)	Option of ENV: indicates each I/O operation in a teleprocessing program transmits a complete message (M) or one logical record (R). ENV(. . . TP(R) . . .)	VSAM	Option of ENV: causes VSAM input/output macros to be used for a file. . . .ENV(. . . VSAM . . .)
TRANSIENT	Attribute: specifies file is to be used for teleprocessing. DCL MESSAGE TRANSIENT INPUT FILE KEYED BUF ENV(TP(M) RECSIZE(64) BUFFERS(4));	WAIT	Statement: suspends other operations until a specified number or, if no number specified, all the named events are complete. WAIT (E1,E2,E3)(2);
TRANSLATE (x ₁ ,x ₂ [,x ₃])	Built-in function: translates source string x ₁ according to replacement string x ₂ and position string x ₃ . If x ₃ is omitted, string containing all possible characters (in ascending order) is assumed. W=TRANSLATE(W,NEWCHARS,OLDCHARS);	WHEN(generic-descriptor-list)	Option in GENERIC: allows selection of generic entry-expression by providing descriptor list. DCL B GENERIC (C WHEN(FIXED), D WHEN(FLOAT));
TRANSMIT(file-expression)	Condition: raised by a permanent I/O transmission error. ON TRANSMIT (PAYROLL) GO TO X;	WHILE	Option of DO/Repetitive specification: specifies condition for execution of do-group. DO I=1 TO 25 WHILE (X<Y); . . . END; PUT DATA((A(J) DO J=1 BY 2 WHILE (J<N));
TRKOFL	Option of ENV: specifies that track overflow feature of the system may be employed. ENV(. . . TRKOFL . . .)	WRITE	Statement: transfers a variable from main storage to RECORD OUTPUT or UPDATE file. WRITE FILE(SALES) FROM (LOG);
TRUNC(x)	Built-in function: truncates value of x to FLOOR(x) if x>0, CEIL(x) if x<0. S=TRUNC(B);	X(w)	Format item: specifies number of blanks to be transmitted on output or number of input characters to be skipped. PUT EDIT (NAME,ADDR) (A(20),X(5),A(10));
U	Option of ENV: specifies undefined-length records. ENV(. . . U RECSIZE(480) . . .)	ZERODIVIDE ZDIV	Condition/Condition prefix: raised by attempt to divide by zero. ON ZDIV SYSTEM;
UNALIGNED UNAL	Attribute: specifies mapping of data elements is to be independent of alignment requirement of data type. DCL 1 A UNAL, 2 B CHAR(3),C;		